

What Is Claimed Is:

1. An isolated nucleic acid molecule comprising a polynucleotide having a nucleotide sequence at least 95% identical to a sequence selected from the group consisting of:

5 (a) a nucleotide sequence encoding a polypeptide comprising amino acids from about -32 to about 365 in SEQ ID NO:2;

(b) a nucleotide sequence encoding a polypeptide comprising amino acids from about -31 to about 365 in SEQ ID NO:2;

10 (c) a nucleotide sequence encoding a polypeptide comprising amino acids from about 1 to about 365 in SEQ ID NO:2;

(d) a nucleotide sequence encoding a polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. 97729; and

15 (e) a nucleotide sequence complementary to any of the nucleotide sequences in (a), (b), (c) or (d).

2. An isolated nucleic acid molecule comprising a polynucleotide which encodes the amino acid sequence of an epitope-bearing portion of an CAPP polypeptide having an amino acid sequence in (a), (b), (c) or (d) of claim 1.

20 3. The isolated nucleic acid molecule of claim 1, which encodes an epitope-bearing portion of a CAPP polypeptide selected from the group consisting of: a polypeptide comprising amino acid residues from about -32 to about -22 in SEQ ID NO:2; a polypeptide comprising amino acid residues from about -4 to about 40 in SEQ ID NO:2; a polypeptide comprising amino acid residues from about 46 to about 57 in SEQ ID NO:2; a polypeptide comprising amino acid residues from about 62 to about 73 in SEQ ID NO:2; a polypeptide comprising amino acid residues from about 78 to about 87 in SEQ ID NO:2; a polypeptide comprising amino acid residues from about 92 to about 110 in SEQ ID NO:2; a polypeptide comprising amino acid residues from about 119 to about 144 in SEQ ID NO:2; a polypeptide comprising amino acid residues from about

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152 to about 186 in SEQ ID NO:2; a polypeptide comprising amino acid residues from about 200 to about 219 in SEQ ID NO:2; a polypeptide comprising amino acid residues from about 230 to about 240 in SEQ ID NO:2; a polypeptide comprising amino acid residues from about 248 to about 258 in SEQ ID NO:2; a polypeptide comprising amino acid residues from about 314 to about 336 in SEQ ID NO:2; and a polypeptide comprising amino acid residues from about 344 to about 353 in SEQ ID NO:2.

4. An isolated nucleic acid molecule, comprising a polynucleotide having a sequence selected from the group consisting of:

(a) the nucleotide sequence of a fragment of the sequence shown in SEQ ID NO:1, wherein said fragment comprises at least 50 contiguous nucleotides of SEQ ID NO:1; and

(b) a nucleotide sequence complementary to a nucleotide sequence in (a).

5. A method for making a recombinant vector comprising inserting an isolated nucleic acid molecule of claim 1 into a vector.

6. A recombinant vector produced by the method of claim 5.

7. A method of making a recombinant host cell comprising introducing the recombinant vector of claim 6 into a host cell.

8. A recombinant host cell produced by the method of claim 7.

9. A recombinant method for producing any of the CAPP polypeptides, comprising culturing the recombinant host cell of claim 8 under conditions such that said polypeptide is expressed and recovering said polypeptide.

10. An isolated CAPP polypeptide having an amino acid sequence at least 95% identical to a sequence selected from the group consisting of:

- (a) amino acids from about -32 to about 365 in SEQ ID NO:2;
- (b) amino acids from about -31 to about 365 in SEQ ID NO:2;
- (c) amino acids from about 1 to about 365 in SEQ ID NO:2;
- (d) the amino acid sequence of the CAPP polypeptide having the amino acid sequence encoded by the cDNA clones contained in ATCC Deposit No. 97729; and
- (e) the amino acid sequence of an epitope-bearing portion of any one of the polypeptides of (a), (b), (c) or (d).

11. An isolated polypeptide comprising an epitope-bearing portion of the CAPP protein, wherein said portion is selected from the group consisting of: a polypeptide comprising amino acid residues from about -32 to about -22 in SEQ ID NO:2; a polypeptide comprising amino acid residues from about -4 to about 40 in SEQ ID NO:2; a polypeptide comprising amino acid residues from about 46 to about 57 in SEQ ID NO:2; a polypeptide comprising amino acid residues from about 62 to about 73 in SEQ ID NO:2; a polypeptide comprising amino acid residues from about 78 to about 87 in SEQ ID NO:2; a polypeptide comprising amino acid residues from about 92 to about 110 in SEQ ID NO:2; a polypeptide comprising amino acid residues from about 119 to about 144 in SEQ ID NO:2; a polypeptide comprising amino acid residues from about 152 to about 186 in SEQ ID NO:2; a polypeptide comprising amino acid residues from about 200 to about 219 in SEQ ID NO:2; a polypeptide comprising amino acid residues from about 230 to about 240 in SEQ ID NO:2; a polypeptide comprising amino acid residues from about 248 to about 258 in SEQ ID NO:2; a polypeptide comprising amino acid residues from about 314 to about 336 in SEQ ID NO:2; and a polypeptide comprising amino acid residues from about 344 to about 353 in SEQ ID NO:2.

12. An isolated antibody that binds specifically to a CAPP polypeptide of claim 10.

13. An isolated nucleic acid molecule comprising a polynucleotide encoding a CAPP polypeptide wherein, except for one to fifty conservative amino acid substitutions, said polypeptide has a sequence selected from the group consisting of:

5 (a) a nucleotide sequence encoding a polypeptide comprising amino acids from about -32 to about 365 in SEQ ID NO:2;

(b) a nucleotide sequence encoding a polypeptide comprising amino acids from about -31 to about 365 in SEQ ID NO:2;

10 (c) a nucleotide sequence encoding a polypeptide comprising amino acids from about 1 to about 365 in SEQ ID NO:2;

(d) a nucleotide sequence encoding a polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. 97729; and

15 (e) a nucleotide sequence complementary to any of the nucleotide sequences in (a), (b), (c) or (d).

14. An isolated CAPP polypeptide wherein, except for at least one conservative amino acid substitution, said polypeptide has a sequence selected from the group consisting of:

20 (a) amino acids from about -32 to about 365 in SEQ ID NO:2;

(b) amino acids from about -31 to about 365 in SEQ ID NO:2;

(c) amino acids from about 1 to about 365 in SEQ ID NO:2;

(d) the amino acid sequence of the CAPP polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. 97729; and

25 (e) the amino acid sequence of an epitope-bearing portion of any one of the polypeptides of (a), (b), (c) or (d).

15. An isolated antibody that binds specifically to a CAPP polypeptide of claim 10.